TEST RESULTS OF GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2017-09-14-01**	**Date: 15-09-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.	
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.	
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.	
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.	
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16	
Source of Sample	:	Sample supplied by Agency	
Sample Condition	:	Satisfactory	
Date of Receipt	:	14-09-2017	
Sample ID No	:	2017-09-14-01/01	
Type of Mix	:	SDBC (Semi Dense Bituminous Concrete)	
Date of test	:	14-09-2017	

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	502	501
2	Weight of the sample After extraction	B	478	477
3	Bitumen percentage	$\frac{A-B}{A}$ X 100	4.78	4.79
4	Average percentage	%	4.8	

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Authorized Signatory
Quality Manager

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ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

Lab ID : **CP-RW-2017-09-14-01** **Date: 15-09-2017**

Sample ID No : **2017-09-14-01/01**

AFTER EXTRACTION(Trail-1)

Weight of Sample(gm) : 478

IS Sieve Size(mm)	Weight Retained(gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-15(grading-2)
13.2	0	0	0	100.0	100
9.5	31	31	6.49	93.5	90-100
4.75	213	244	51.05	49.0	35-51
2.36	63	307	64.23	35.8	24-39
1.18	39	346	72.38	27.6	15-30
0.3	71	417	87.24	12.8	9-19
0.075	34	451	94.35	5.6	3-8
PAN	27	478	100.00	0.0	0

AFTER EXTRACTION(Trail-2)

Weight of Sample(gm) : 477

IS Sieve Size(mm)	Weight Retained(gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-15(grading-2)
13.2	0	0	0	100.0	100
9.5	29	29	6.08	93.9	90-100
4.75	215	244	51.15	48.8	35-51
2.36	62	306	64.15	35.8	24-39
1.18	41	347	72.75	27.3	15-30
0.3	66	413	86.58	13.4	9-19
0.075	32	445	93.29	6.7	3-8
PAN	32	477	100.00	0.0	0

Note:-

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TESTS RESULTS ON STABILITY OF MIX

Lab ID	:	**CP-RW-2017-09-11-01** **Date: 14-09-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Hot Mix Plant, Bangalore
Sample Condition	:	Satisfactory
Date of Receipt	:	11-09-2017
Sample ID No	:	2017-09-11-01/01
Type of Mix	:	SDBC (Semi Dense Bituminous Concrete)
Date of test	:	11-09-2017

The results of the tests conducted on the Semi Dense Bituminous Concrete mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-16
1	Marshal Stability at 60°C, KN	10.54	10.11	8.2KN(min)
2	Marshal flow at 60°C, mm	3.22	3.29	2-4
3	Percent air Voids	4.59	4.25	3-5
4	Percent Voids in mineral Aggregate(VMA %)	13.88	13.94	13-15
5	Percent Voids filled with Bitumen(VFB %)	70.32	70.0	65-75
6	Density, g/cc	2.26	2.24	–

Note:-

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Quality Manager

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	**CP-RW-2017-09-11-01**	**Date: 14-09-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.	
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.	
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.	
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.	
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16	
Source of Sample	:	Sample supplied by Agency	
Sample Condition	:	Satisfactory	
Date of Receipt	:	11-09-2017	
Sample ID No	:	2017-09-11-01/01	
Type of Mix	:	SDBC (Semi Dense Bituminous Concrete)	
Date of test	:	11-09-2017	

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	99.0	1.0	98.8	Minimum Retained Coating 95%
2	98.5	1.5		
3	99.0	1.0		

Note:
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PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR SEMI DENSE BITUMINOUS CONCRETE

Lab ID	:	**CP-RW-2017-09-11-01** **Date: 14-09-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	11-09-2017
Sample ID No	:	2017-09-11-01/01
Type of Mix	:	SDBC (Semi Dense Bituminous Concrete)
Date of test	:	11-09-2017

Physical Requirements fo Coarse Aggregate for Semi Dense Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	11.1	Combined Flakiness & Elongation Index for DBM is Maximum 35%	IS:2386 Part I
	Elongation Index	9.5		
Strength	Aggregate Impact Value	21.8	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.68	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.27	Maximum 2%	IS:2386 Part III

Note:

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TEST RESULTS OF GRADATION FOR SDBC
IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2017-09-11-01** **Date: 13-09-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	11-09-2017
Sample ID No	:	2017-09-11-01/01
Type of Mix	:	SDBC-Plant (Semi Dense Bituminous Concrete)
Date of test	:	11-09-2017
Weight of Sample	:	5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-15(grading-
13.2	0	0	0	100	100
9.5	410	410	8.20	91.80	90-100
4.75	2187	2597	51.94	48.06	35-51
2.36	1068	3665	73.30	26.70	24-39
1.18	585	4250	85.00	15.00	15-30
0.3	358	4608	92.16	7.84	9-19
0.075	169	4777	95.54	4.46	3-8
PAN	223	5000	100.00	0.00	0

Note:-

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DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2017-08-18-01** **Date: 22-08-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	18-08-2017
Sample ID No	:	2017-08-18-01/01
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	18-08-2017

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.6%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.2%	
Combined Flakiness and Elongation Index for WMM	24.8%	

Note:-
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End of Report

TEST RESULTS OF GRADATION FOR WMM

Lab ID	:	**CP-RW-2017-08-18-01** **Date: 22-08-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	18-08-2017
Sample ID No	:	2017-08-18-01/01
Type of Mix	:	WMM (Wet Mix Macadam)
Date of test	:	18-08-2017
Oven Dry Weight	:	11000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec.I.Vide Table 400.13 MORTH Specification
53	0	0	0.0	100.0	100
45	315	315	2.9	97.1	95-100
22.4	2259	2574	23.4	76.6	60-80
11.2	2179	4753	43.2	56.8	40-60
4.75	2251	7004	63.7	36.3	25-40
2.36	1621	8625	78.4	21.6	15-30
0.6	623	9248	84.1	15.9	8-22
0.075	1338	10586	96.2	3.8	0-5

Note:-

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TEST REPORT OF AGGEGRATE IMPACT VALUE
IS: 2386 Part IV

Lab ID	:	**CP-RW-2017-08-18-01**	**Date: 22-08-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.	
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.	
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward	
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.	
Customer Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16	
Source of Sample	:	Sample supplied by Agency	
Sample Condition	:	Satisfactory	
Date of Receipt	:	18-08-2017	
Sample ID No	:	2017-08-18-01/01	
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)	
Date of test	:	18-08-2017	

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.2	300.2
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.9	74.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	225.9	225.8
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.4	0.4
5	Aggregate impact value	(B/A)*100	24.6	24.7
6	Aggregate impact value (Mean of two tests)	Pecentage	24.6	

Note:-

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CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID	:	**CP-2017-08-08-03** **Date: 11-08-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer's Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-08-2017
Sample ID No	:	2017-08-08-03/03
Sample Type	:	Fine Aggregate
Reference to BIS codes	:	IS 383 : 2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1, 3) RA2012 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
Date of test	:	08-08-2017
Total weight taken	:	1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	133	133	13.3	86.7	90-100	90-100	90-100	95-100
3	2.36 mm	189	322	32.2	67.8	60-95	75-100	85-100	95-100
4	1.18 mm	100	422	42.2	57.8	30-70	55-90	75-100	90-100
5	600 micron	180	602	60.2	39.8	15-34	35-59	60-79	80-100
6	300 micron	197	799	79.9	20.1	5-20	8-30	12-40	15-50
7	150 micron	104	903	90.3	9.7	0-10	0-10	0-10	0-15
8	Pan	97	1000	100.0	0.0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

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TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2017-08-08-03** **Date: 11-08-2017**

Sample ID No : 2017-08-08-03/03

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.85	–
2	Specific Gravity	2.58	–
3	Material finer than 75 micron(%)	8.2	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

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Quality Manager

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TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2017-08-08-03** **Date: 11-08-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer's Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample condition	:	Satisfactory
Date of Receipt	:	08-08-2017
Sample ID No	:	2017-08-08-03/02(a)
Sample Type	:	40mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	08-08-2017

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : 15000 grams

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	280	280	1.9	98.1	90-100
3	20 mm	5289	5569	37.1	62.9	30-70
4	10 mm	4700	10269	68.5	31.5	10-35
5	4.75 mm	4190	14459	96.4	3.6	0-5
6	Pan	541	15000	100.0	0	---

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CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2017-08-08-03** **Date: 11-08-2017**

Sample ID No : 2017-08-08-03/02(a)

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	**12.6**	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	**11.7**	
3	Specific Gravity	**2.67**	_
4	Bulk Density(Loose) (Kg/l)	**1.54**	_
5	Bulk Density(Compacted) (Kg/l)	**1.58**	_
6	Water Absorption(%)	**0.22**	_

Note:
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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2017-08-08-03** **Date: 10-08-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer's Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-08-2017
Sample ID No	:	2017-08-08-03/01
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	09-08-2017

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	2.85	–
2	Finess by Air permeablity method (m^2/kg, Min)	275.5	225m^2/kg, Min
3	Density (gm/cc)	3.1	–
4	Standard Consistency (%)	28.0%	Not specified
5	Initial Setting time	185 minutes	Not less than 30 minutes
6	Final Setting time	250 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1mm	Not more than 10 mm

Note:

The results pertain to the samples received and tested.

All information furnished by Customer/Representative

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Authorized Signatory
Quality Manager

AS ward No. 5

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Certificate No.: TC-5548

CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2017-08-08-03** **Date: 06-09-2017**
Customer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
Address	:	Byatarayanapura Sub division, BBMP, Bangalore.
Project Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer's Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	08-08-2017
Sample ID No	:	2017-08-08-03/01
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, Determination of Compressive Strength, Clause 6
Date of test	:	09-08-2017

Compressive Strength			
Sl.No.	**Physical properties**	**Results**	**Requirement as per IS 12269: 2013**
1	3 Days	29.5N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.0N/mm^2	Not less than 37 N/mm^2
3	28 Days	54.5N/mm^2	Not less than 53 N/mm^2

Note:
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AE Ward No 5
ಸಂಖ್ಯೆ ಕೆಪಸ ಕ್ಷೇ/1
2024
ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

CIVIL Pro BANGALORE Sig..... Date.....

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Authorized Signatory
Quality Manager

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M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

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GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2017-08-19-02** **Date: 21/08/2017**

Customer : Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.

Address : Byatarayanapura Sub division, BBMP, Bangalore.

Project Name : Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.

Agency : Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.

Customer's Reference : EE/BTP/BBMP/E-PMT/202/2015-16

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 19-08-2017

Sample ID No : 2017-08-19-02/01

Customer ID : Drain Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 21/08/2017

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete	M20	14/08/2017	21/08/2017	150.23 X 150.26 X 150.22	22574	8.241	392.8	17.4	17.5
2	Drain Concrete	M20	14/08/2017	21/08/2017	150.21 X 150.25 X 150.23	22569	8.256	404.0	17.9	
3	Drain Concrete	M20	14/08/2017	21/08/2017	150.22 X 150.21 X 150.28	22565	8.201	390.4	17.3	

Note:

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Quality Manager

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****End of Report****

CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2017-08-19-02** **Date: 11/09/2017**

Customer : Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.

Address : Byatarayanapura Sub division, BBMP, Bangalore.

Project Name : Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.

Agency : Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.

Customer's Reference : EE/BTP/BBMP/E-PMT/202/2015-16

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 19-08-2017

Sample ID No : 2017-08-19-02/02

Customer ID : Drain Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 11/09/2017

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete	M20	14/08/2017	11/09/2017	150.15 X 150.22 X 150.21	22556	8.215	512.0	22.7	22.9
2	Drain Concrete	M20	14/08/2017	11/09/2017	150.21 X 150.22 X 150.10	22565	8.244	521.2	23.1	
3	Drain Concrete	M20	14/08/2017	11/09/2017	150.22 X 150.29 X 150.23	22577	8.213	517.0	22.9	

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Ward No 5 Agrahara to Lake road

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Authorized Signatory
Quality Manager

****End of Report****

CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : **CP-2017-08-19-02** **Date: 21/08/2017**

Customer : Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.

Address : Byatarayanapura Sub division, BBMP, Bangalore.

Project Name : Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.

Agency : Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.

Customer's Reference : EE/BTP/BBMP/E-PMT/202/2015-16

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 19-08-2017

Sample ID No : 2017-08-19-02/03

Customer ID : Drain Concrete

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 21/08/2017

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete	M20	14/08/2017	21/08/2017	150.11 X 150.13 X 150.17	22536	8.231	396.6	17.6	17.8
2	Drain Concrete	M20	14/08/2017	21/08/2017	150.21 X 150.19 X 150.23	22560	8.289	410.6	18.2	
3	Drain Concrete	M20	14/08/2017	21/08/2017	150.22 X 150.24 X 150.18	22569	8.342	399.5	17.7	

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At Ward No 5

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****End of Report****

CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

ID	:	CP-2017-08-19-02 **Date: 11/09/2017**
tomer	:	Assistant Executive Engineer, Byatarayanapura Sub division, BBMP, Bangalore.
ldress	:	Byatarayanapura Sub division, BBMP, Bangalore.
roject Name	:	Improvements to road and drains at Agrahara village to lake road in Ward no.05 Byatarayanapura Sub division.
Agency	:	Sri.Gopireddy, No.03, First cross, First main, Ramachandrappa layout, Arebic College post, Erannapalya, Bangalore-560045.
Customer's Reference	:	EE/BTP/BBMP/E-PMT/202/2015-16
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	19-08-2017
Sample ID No	:	2017-08-19-02/04
Customer ID	:	Drain Concrete
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M20 / 28 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	11/09/2017

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete	M20	14/08/2017	11/09/2017	150.24 X 150.22 X 150.21	22569	8.345	523.6	23.2	22.8
2	Drain Concrete	M20	14/08/2017	11/09/2017	150.15 X 150.23 X 150.18	22557	8.299	507.5	22.5	
3	Drain Concrete	M20	14/08/2017	11/09/2017	150.22 X 150.14 X 150.18	22554	8.321	509.7	22.6	

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